



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

First Named

Inventor : Uchenna N. Chukwu

Appln. No. : 10/619,403

Filed : July 14, 2003

Title : Vegetable Processing

Docket No. : C514.12-0004

Group Art Unit: 1761

Examiner: Corbin,
Arthur L.

EXHIBIT C
of
AMENDMENT

“Green Coffee Bean Extract”

obtained from

<http://healthlibrary.epnet.com/GetContent.aspx?token-e0498803-7f62-4563-8d47-5fe33da...>

highlighting the presence of polyphenols in green coffee beans.

downloaded on September 23, 2007.

Sponsored by [iHerb.Com](#)

Natural Library: [The Natural Pharmacy](#) | [HerbalGram](#) | [German Commission E](#) | [HerbClip](#) | [Healthy Ingredients](#) |

[Aromatherapy for Everyone](#)

Medical Library: [Conditions](#), [Procedures](#) [Drug Database](#), [Medical Dictionary](#) En Español: [Condiciones](#) | [Procedimientos](#)

Herbs & Supplements :

Green Coffee Bean Extract

Alternate Names / Related Terms:

- Chlorogenic Acids; GCBE; CGA

Principal Proposed Uses

- [Hypertension](#)

Other Proposed Uses

- [Weight Loss](#); [Preventing Diabetes](#)

Page Navigation

[What Is Green Coffee Bean Extract Used for Today?](#)

[Dosage](#)

[Safety Issues](#)

[References](#)

[En Español \(Spanish Version\)](#)

Just as black tea is made by processing green tea leaves from their original state, ordinary coffee is made by roasting green coffee beans. This processing alters the chemical makeup of the plant product. In an analogy to the medicinal study of [green tea](#), an extract made from green coffee beans is undergoing increasing investigation as a possible health-promoting supplement.

Like green tea, green coffee bean extracts (GCBE) contains strong [antioxidants](#) in the polyphenol family. The primary polyphenol antioxidants in green coffee bean extract are in a family known as chlorogenic acids (CGA). Meaningful, if still preliminary, evidence hints that CGA may help reduce blood pressure. Other proposed uses of GCBE are based primarily on its caffeine content, as well as [observational studies](#) of ordinary coffee consumption and the possible health benefits of antioxidants in general.

What Is Green Coffee Bean Extract Used for Today?

Animal studies have found evidence that chlorogenic acids from green coffee bean extract can reduce blood pressure. ¹ Based on this, researchers have conducted human trials.

In a [double-blind, placebo-controlled study](#) of 117 males with mild [hypertension](#), GCBE was given for one month at 46 mg, 93 mg, or 185 mg daily. ² After 28 days, the results showed a significant improvement in blood pressure as compared to placebo in the 93 mg and 185 mg groups. The results seen were dose-related, meaning that the greater the dose, the greater the improvement. The finding of dose-relatedness tends to increase the likelihood that a studied treatment is actually effective.

Antihypertensive benefits were also seen in a much smaller study using purified chlorogenic acids. ³